## **AMENDMENTS TO THE CLAIMS**

1. (Currently Amended) A method for calibrating a laser three-dimensional digitizing sensor, comprising:

defining a three-dimensional coordinator X-Y-Z;

providing a calibrating surface;

projecting a laser light plane onto the calibrating surface to form a bright line thereon, wherein the laser light plane and the bright line are parallel to X-Z plane;

translating the calibrating surface along the Z axis to establish a first mapping table of a two-dimensional digital image to the Z coordinate-; and

rotating the calibrating surface by a predetermined first angle along the Y axis then translating along the Z axis to establish a second mapping table of the two-dimensional digital image to the Z coordinate according to the first mapping table.

2. (Original) The method for calibrating a laser three-dimensional digitizing sensor as claimed in claim 1 further comprising the following step:

rotating the calibrating surface by a predetermined second angle along the X axis then translating along the Z axis to establish a third mapping table of the two-dimensional digital image to the Y coordinate according to the first mapping table.

3. (Currently Amended) An method for calibrating a laser three-dimensional digitizing sensor, comprising:

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providing a base plane, a laser sensor generating a <u>laser</u> light plane, a flat block having a calibrating surface, a rotating axis perpendicular to the base plane, a translating axis perpendicular to the rotating axis;

projecting the laser light plane onto the calibrating surface forming a bright line-; adjusting the laser light plane parallel to the base plane-;

adjusting the flat block such that the calibrating surface is perpendicular to the translating axis-;

translating the flat block to a plurality of predetermined first calibrating positions along the translating axis then recording corresponding bright line images made by the laser sensor at each <u>first</u> calibrating position-;

rotating the flat block a predetermined angle along the rotating axis, translating the flat block to a plurality of predetermined second calibrating positions along the translating axis, then recording corresponding bright line images made by the laser sensor at each second calibrating position.

- 4. (Currently Amended) An apparatus for calibrating a laser three-dimensional digitizing sensor, comprising:
  - a base plane-;
- a laser sensor fixed to the base plane to generate a light plane parallel to the base plane; and-

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a calibrating mechanism fixed to the base plane having a flat block with a calibrating

surface thereon, wherein the light plane is projected onto the calibrating surface forming a bright

line, and such that the laser sensor senses and generates a digital image of the bright line.

5. (Original) The apparatus for calibrating a laser three-dimensional digitizing sensor as

claimed in claim 4, wherein the calibrating mechanism further has a rotating portion including a

rotating axis perpendicular to the base plane, wherein the flat block rotates along the rotating axis

by the rotating portion.

6. (Original) The apparatus for calibrating a laser three-dimensional digitizing sensor as

claimed in claim 5, wherein the calibrating mechanism further has a translating portion including

a translating axis perpendicular to the rotating axis, wherein the flat block translates along the

translating axis by the translating portion.

7. (Original) The apparatus for calibrating a laser three-dimensional digitizing sensor as

claimed in claim 4, wherein the rotating portion is a rotatable platform driven by a motor

connected to a reduction mechanism.

8. (Original) The apparatus for calibrating a laser three-dimensional digitizing sensor as

claimed in claim 4, wherein the translating portion is a linear guide way.

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